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PATENT
Attorney Docket No. 208892

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Doerr et al.

Art Unit: 3677

Application No. 09/771,430

Examiner: A. Chop

Filed: January 26, 2002

For: HANG TAG AND METHOD OF APPLYING HANG TAG TO AN ELONGATED OBJECT

DECLARATION UNDER 37 C.F.R. § 1.132 OF CHRISTOPHER E. DOERR

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

I, Christopher E. Doerr, hereby declare and state that:

1. I am a co-inventor of U.S. Patent Application Serial No. 09/771,430, filed on January 26, 2001. I am presently employed by the Wisconsin Label Corporation.

2. Since June 5, 1989, I have been working continuously in the field of industrial marking and identification. I am now a senior account executive and have been classified by our management team as a Certified Material Expert according to our internal testing program.

3. I have reviewed the patent application as originally filed at the U.S. Patent and Trademark Office.

4. From my experience in the field of industrial marking and identification, I learned of a significant problem relating to the dangers associated with the use of electrical cord sets which is tied directly to inadequate marking and identification. In fact, the Underwriters' Laboratories, Incorporated ("UL") identified the significant safety risks related to electrical cord sets at least as far back as October of 1937, the date when UL adopted its Standard 817 ("UL817") specifically for promoting electrical cord set safety. Subsequently, UL has revised that standard frequently, which is now in its tenth different

edition, because consumers continued to suffer from serious injury and death due to improper use of electrical cord sets. For example, prior attempts to convey cautionary information that warns consumers of dangerous use of electrical cord sets failed, at least in part because the information was not delivered for the extended period of time required in the typical life of the electrical cord sets.

5. It is my understanding that UL advised various electrical cord set manufacturers in advance concerning the proposed tenth edition of UL 817 on or prior to March 2, 1993. On or about March 2, 1993, I also learned of the existence of the forthcoming proposed tenth edition of UL 817. On January 14, 1994, UL indicated that identification of cord sets with warning information would take effect on April 3, 1995. On June 20, 1994, the manufacturing sector agreed to comply with the tenth edition of UL 817. Thus, it is evident that UL provided notice of over 2 years to manufacturers of electrical cord sets as to what would be required to withstand the tests of UL 817.

6. In accordance with the tenth edition of UL 817, electrical cord sets must now be provided with a medium for the cautionary information that must be constructed to withstand long-term wear and tear during use in the typical life of an electrical cord set to minimize injury and death resulting therefrom. Particularly, the medium must be able to withstand harsh exposure to heat, humidity, water immersion, freezing temperatures, pulling or snagging, ultraviolet light, and other conditions. Following exposure to such severe conditions, UL 817 requires that the medium be able to hold a five-pound (approximately 2.286 kilogram) weight without slipping from an original position on the cord by more than 0.5 inches (approximately 1.28 centimeters), nor should the medium tear or crack more than 0.06 inches (approximately 0.16 centimeters). Requiring that the cautionary medium for electrical cord set labels pass these tests is important in ensuring that the cautionary medium will be long-lasting so as to minimize improper use by uninformed consumers.

7. There primarily are two classes of media that are used to convey the cautionary information on cord sets, namely, adhesive labels and hang tags. On January 31, 1995, UL recognized adhesive labels of Wisconsin Label Corporation, as described in U.S. Patent 5,658,648, as satisfying edition ten of UL 817. Prior to UL's recognition of the adhesive labels in accordance with U.S. Patent 5,658,648, no other solution had been provided for producing adhesive labels that met the requirements of UL 817.

8. Despite the availability of the approved adhesive labels, there remained a significant demand for hang tags that could be used as an alternative medium for conveying the cautionary information. For example, many cord set manufacturers prefer the appearance of hang tags over adhesive labels. In this respect, it is often difficult to flag labels perfectly in an end-to-end alignment as is desired aesthetically. In addition, cord sets, which consist of wire conductors that are braided or twisted and then wrapped with an insulating material, generally form an odd (imperfect) circumference. Whereas wrapping an adhesive label in a flag position on cord sets having an imperfect or odd circumference is difficult to do (particularly because the cord set itself does not also have adhesive), hang tags readily accommodate the odd circumference often found with cord sets. Furthermore, the adhesive required for labels adds expense and renders the label susceptible to accumulating dust or dirt, which may compromise the legibility of the label.

9. Although UL approved a Wisconsin Label hang tag under Standard 817 in approximately March 1995, the approved hang tag could only be applied manually. However, it is most desirable that the hang tag be applied automatically. For example, manual application typically yields application of approximately only two (2) units per minute. In contrast, hang tags that are automatically applied generally can be fastened to a cord set at a rate of approximately fifteen (15) units per minute. Thus, a significant labor savings is realized through the use of hang tags that can be automatically applied. Manual application of hang tags in the U.S. is further limited because of the Occupational Safety & Health Administration (OSHA) requirements pertaining to the digital and wrist movements required for manual application.

10. Despite the sizable electrical cord set market that was available and this significant long-felt need which was recognized in the industry for automatic application of hang tags, it is my understanding that no hang tag suitable for automatic application to cord sets had been approved pursuant to UL 817 prior to the present invention. In fact, the largest cable tie manufacturers in the U.S., Panduit Corporation, Thomas and Betts, and Tyton Corporation, which I believe collectively make up approximately some 80% of the U.S. cable tie market share, all initially failed when attempting to use their machines to automatically apply the cable ties through the hang tags to secure the tags to cord sets. Upon information and belief, in approximately December 1994, Tyton demonstrated a failed

system for automatically applying hang tags to cord sets in a presentation to Pacific Electricord (Leviton), a cord set manufacturer. Both Tyton and Thomas and Betts were not able to align the hole in the hang tag with the cable tie to achieve automatic application, and despite the significant market at stake, were unable to solve this problem. As regards Panduit Corporation, prior to the development of the present invention, the feeding jaws of its PAT system (see, e.g., page 9, line 28 of the present application) shredded the tag and did not permit free movement of the cable tie for proper threading.

11. Significantly, hang tags under the present invention comprise a slot which has minimum dimensions of at least about 0.25 inches by about 1 inch so as to be capable of permitting the jaw to travel through the slot so that the cable tie can be threaded through the slot automatically by the jaw of the machine. It was surprising and unexpected that such hang tags, having such a large slot, not only were capable of being automatically applied, but also passed UL 817, which requires, in part, that the tag shall not separate from the cord or slip or move more than 0.5 inches, when a 5 lb. weight is suspended from the affixed tag. Accordingly, the hang tags of the invention permit automatic application and will allow the industry to convey cautionary information to electrical cord set consumers on a long term basis, thereby minimizing injury or death caused by improper use of electrical cord sets.

12. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code, and that such willful, false statements may jeopardize the validity of the application or any patent issued thereon.

9-6-02

Date

Christopher E. Doerr